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ABSTRACT

This paper presents (1) literature which indicates that blocks are considered boys' materials and are mainly used by boys, and (2) a description of a study designed to encourage girls' play with blocks. Sixteen 4-year-olds (eight boys and eight girls), were observed for 30 minutes by two observers during free play activities with blocks. In general, results indicated that while girls spent little time in the block area, boys were actively engaged in building large block constructions. In an attempt to increase the girls' involvement in block activities, a new block area was set up in an adjoining room which was frequented by girls for art, stories and other quiet activities. This procedure was intended to offer the girls direct access to the blocks, to encourage their uninhibited block play, and to ensure that the new block area would not simply be added to the old one. Eight subsequent observations of both areas revealed an increase in the time spent by all girls in their block area. (Author/MP)

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Sex-Stereotyping in Block Play of Preschool Children

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SEX-STEREOTYPING in children's use of play materials affects and reinforces stereotyping in children's overall development. This exploratory study focuses on sex role stereotyping in young children's use of blocks. It examines the prevailing evidence that blocks are considered boys' material and are mainly used by boys.

Block Play of Preschool Children

More than 50 years ago when early childhood educators acknowledged children's play as a significant subject for research, block play was recognized and accepted as a useful medium for the study of children's self-education (Johns 1933). Even today block play continues to be an important early childhood education curricular activity. Blocks are considered to help young children develop perceptual, mathematical and science awareness (Read 1976, Stark 1970); promote motor coordination and provide learnings of design and construction. Blocks encourage cooperative and dramatic play, help children to release energy, aid social integration and combine creative expression with mastery (Hartely *et al.* 1952).

Since blocks support children's development in an integrated and organic way and offer them innumerable experiences, it seems desirable to promote their use both by girls and boys. However, it appears from literature available that blocks are generally considered boys' material. They are described as requiring active and physical participation, accompanied by noise and much calculation. In traditional Western society, block-building is supposed to characteristically fall into a man's world

*Lauren Favero and Bonnie Schwartz, students at Douglass College in Early Childhood Education Certification Programme made observations for this study as part of a research project they did with the author.

(Sprung 1978). This finding that boys dominate the block area and girls seldom get involved in the activity, was also confirmed by student observations at a college laboratory nursery school.

A number of the past studies have focused on descriptions of sex-sterotypic play in the block area. In classroom after classroom blocks are seen as a boy's domain (Sprung 1975), Robinson (1977) found distinct play patterns among boys and girls in several block play episodes. Boys tended to be more actively and physically involved with the blocks, while the girls assumed docile and passive roles. A study was conducted by Smith (1977) to establish behaviourally based masculine and feminine activity preference scales for preschoolers. He found that when young children were confronted with 26 different play preferences, one of which included block play, the boys spent more time with blocks than the girls. Smith's prediction of male domination in the block area was supported by his findings. The percentage of free play time spent with blocks was significantly higher for boys than for the girls.

Cramer and Hogan (1975) repeated an early study by Erikson. They presented a group of five-year olds with a set of 18 differently shaped wooden blocks, dolls and dolls furniture, vehicles and toy animals. The children were asked to develop an imaginary moving picture scene with any of the available materials. They observed that the boys used more blocks, vehicles and male uniformed dolls, supporting the earlier study. Twenty-one per cent of the blocks were used in the structures boys made, while only five per cent of the blocks were used in the structures girls made.

Frisch (1977) observed toy selections of both female and male children between the ages of 14-15 months. In an experimental playroom set up by him, various toys were available on the floor to the children. The materials included blocks, beach balls, bobo dolls, a bracelet, a doll, and a baby bottle. Girls' toy selections consisted of dolls and other typical female toys, while the boys portrayed the typical aggressive and physical behaviour labelled 'masculine' by their interest in blocks.

From literature reviewed, it seems evident that building blocks are associated with architecture, construction, engineering and 'making things work'. They require active and physical participation and are accompanied by noise and calculation. For boys, visual spatial ability as measured by the WPPSI (Wechsler Preschool and Primary Scale of Intelligence) shows a positive correlation with a preference for 'masculine' activities. This finding lends support to a study done by Sherman (1967) that the superior visual spatial ability of males is related to their greater involvement in masculine activities such as blocks and large motor toys.

Some studies deal with environmental influences and their effects on children's play. Kinsman and Berk's empirical study (1979) looked at two traditional early childhood activity settings—blocks and housekeeping and their influence on young children's play and social behaviours. Even with no conscious effort from teachers to sex type, it has been suggested that girls, who play with dolls, may receive a very different education from boys who play with blocks (Stacey, Bereaud and Daniels 1974). Other studies report that boys spend more time playing in the block area and girls spend more time in the homemaking area (Clark, Wyon and Richards 1969, Coates, Lord and Jakabovics 1975, Sears 1965, Vance and McCall 1934).

Purpose of the Study

The purpose of this exploratory study was to examine the prevailing evidence that blocks are considered boys' material and mainly used by boys; and if so, to develop alternatives to encourage girls to play with blocks.

Method

The subjects of this study were 16 four-year olds, 8 boys and 8 girls. As the children entered nursery school each afternoon, there were various activities available to them. The children were free to play in any of the activity centres for a half hour. The block play centre, the area of focus for this study, was approximately 18 ft. × 18 ft. and the unit blocks were stored on large wooden shelves, easily accessible to the children. For use with the unit blocks there were also on the shelves several accessory toys, wooden trucks, ramps and hollow blocks.

Procedure

Two students, both in Early Childhood Education Teacher Certificate Programme, made observations. At the outset they spent time in the observation booth of the nursery school, familiarizing themselves with the children, the set-up and the daily curricular routines. It was then decided to observe and record chilren's play behaviour during free play time (i.e. 12.45 to 1.15 p.m.) because it was at this time that the children were free to select the activity of their preference. It was also decided to use a code for each kind of block activity to facilitate recording. Block play was assigned the letter B and broken down into sub-units of different types of block play thus :

(a) B_1=Stacking (3 to 5 blocks tall)
(b) B_2=Building
  (i) B_2G=General block structure with more than 3-5 blocks
  (ii) B_2R=Representational block configurations
(c) B_3=Play (blocks as secondary importance to other play materials)
(d) B_4=Clean-up of blocks
(e) B_5=Knocking down block structure

Hypotheses

It was hypothesized that, (*i*) boys would be more likely to engage in any type of block activity, compared to girls; (*ii*) boys would be more likely to engage in B_1, B_2, and B_5 activities, compared to girls; (*iii*) girls would be more likely to engage in B_3 and B_4 activities, compared to boys. After obtaining observer reliability, observations were made of 30 minutes during the free play period. Each observation was divided into six intervals of 5 minutes. Twelve observations (72 intervals consisting of five minutes each) were recorded by both observers. Since the observations were made from the observation booth, the observers were not visible to the children. This aided in uninterrupted recording. At the end of these 12 observations an overall percentage of block play during free play time was calculated for each individual child.

Several differences were noted between the play behaviour of the girls and boys. In general, the girls spent limited time in the block area. On the other hand, the boys were actively building large block constructions and incorporated large wooden trucks in their block play, supporting Hypothesis 2. Although two girls spent more time in the block area than the other girls, it was not comparable to that of the boys, since their block play consisted of just two episodes. Their activities included the construction of a house for the nursery school guinea pig (B_3 type of play) which could be described as a nurturant activity seen as a predominantly female role; and B_4 type of block play, i.e. clean-up of blocks.*

After establishing base line measurements, an intervention in the curricular programme was planned. The intervention involved setting up

*Clean-up involved sorting out, arranging and putting the blocks back on their respective shelves. At the end of free play it was the practice in the nursery school, that children put away the toys used in various activities. It was observed that after the girls put away the materials they had used (homemaking, art, manipulative toys) they would invariably, willingly, assist the boys in putting away the blocks, even though they themselves had not used them. This also could be described as a "mothering" or "feminine" type of activity.

a new block area. Initially it was planned to set up the new block area in an adjoining room, which was frequented by the girls for art, stories and other quiet activities. This was intended in order to (*a*) offer the girls direct access to the blocks and encourage uninhibited block play by themselves; and (*b*) to ensure that the new blocks would not simply be added to the old ones. This was not possible because of the inadequacy of space available in the school. Therefore, it became necessary to place the new block area next to the original block area. The new block area contained blocks similar to the ones in the old block area and doubled the number of blocks. The two areas were approximately equal in area and were separated from each other by two 3 ft. dividers. This arrangement made it difficult to keep separate records of block play in the old block area and in the new block area.

Eight subsequent observations were made (48 intervals of 5 minutes each). Block play was recorded by both observers in both block areas together, the new and the old. At the end of these eight observations, an overall percentage of block play was calculated. Five out of the eight boys increased the time they spent playing with blocks when the new block area was available. Furthermore, the attempt to encourage block play by girls was successful. Three girls, who had not used blocks during the first set of observations, initiated block play. There was an increase in the time spent by all girls in their block play. And the availability of additional blocks elicited B_1 and B_2 type of block play by girls. Hence, when the new block area was added, the girls overcame the limitation shown earlier in the pre-test.

Conclusion

By recording observations of children at play with blocks, this exploratory study examined one of the many sex-role stereotypic learning activities that exist in early childhood education programmes. By simply providing increased opportunities for girls to play with blocks, more play of a non-stereotypic kind occurred among the girls. The results of the study suggested that block play of pre-school girls could be increased with an intervention, such as providing more blocks. Also that such interventions could be expanded to include additional learning experiences initiated, encouraged and reinforced by parents and teachers.

Similar efforts to overcome sexist teaching environments may have the same positive effects on children. Greater efforts must therefore be made by all concerned to provide children with opportunities to develop and achieve their fullest potential free from sex-stereotyping.

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